

The diagram shows a cross-sectional view of a semiconductor device. An input terminal 'IN' is connected to a protection circuit block labeled 'CIRCUIT TO BE PROTECTED'. This circuit is connected to a series of resistors R_1, R_2, R_3, R_4 and diodes D_1, D_2, D_3 that protect the internal circuitry. The internal circuit includes a node 'NB' and various doped regions labeled 'p', 'n', 'p+', and 'n+'. A substrate with a resistive layer R_i is at the bottom. A power supply terminal 'CP' is connected to the top of the device, which includes a capacitor C_2 and a resistor 30 . The device is labeled with various numbers (10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 32) indicating different layers and components.

FIG.3

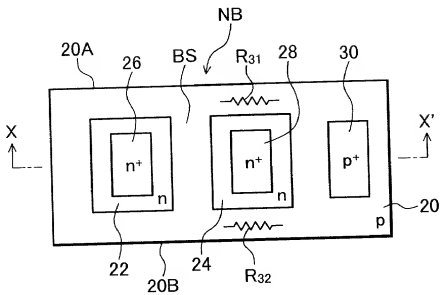


FIG.4

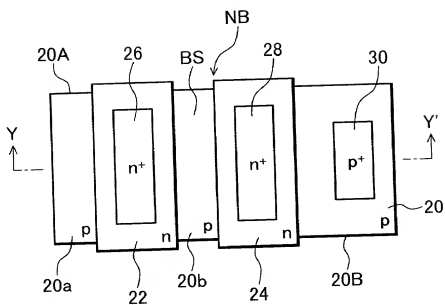


FIG.5

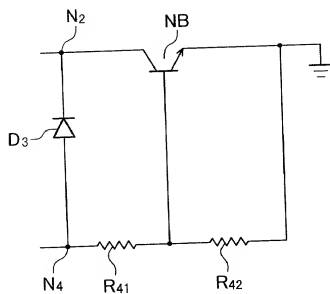


FIG. 6

FIG. 6

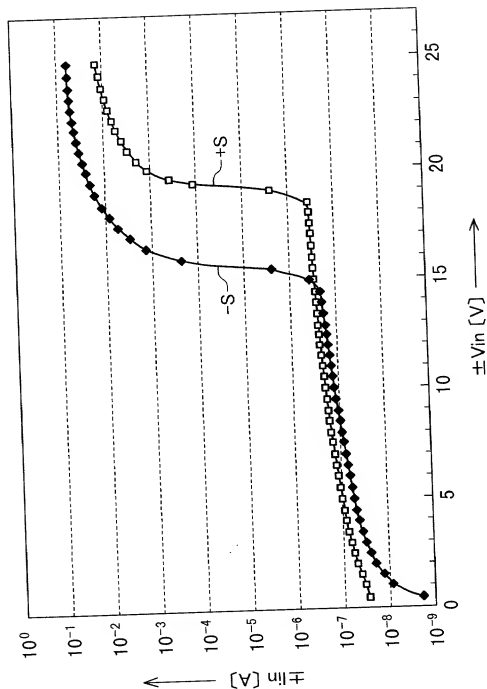


FIG. 8

FIG. 8

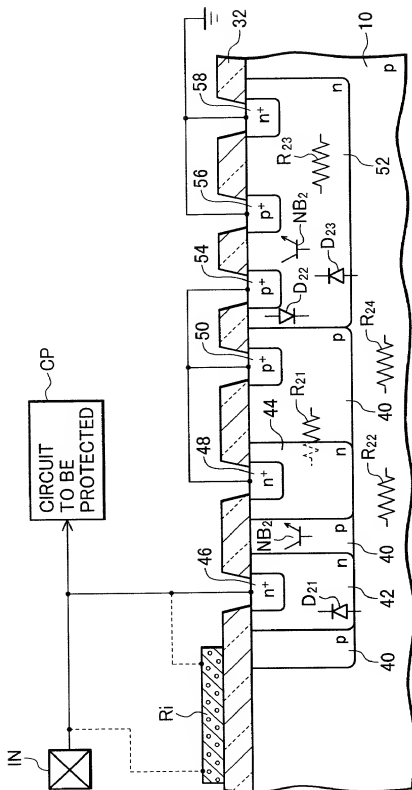


FIG.9

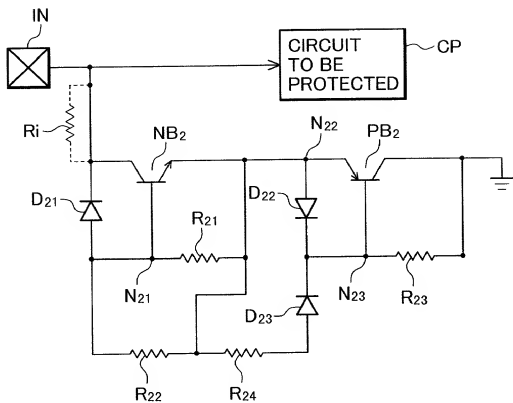


FIG.10
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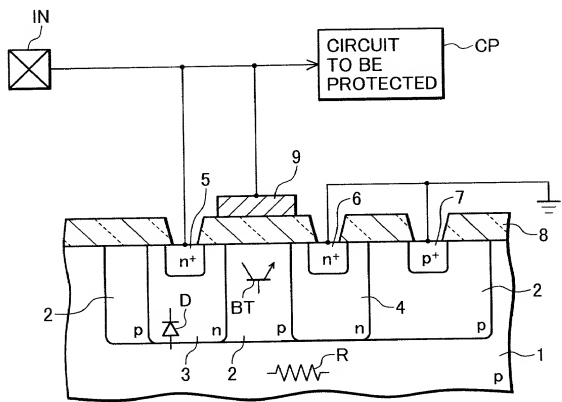
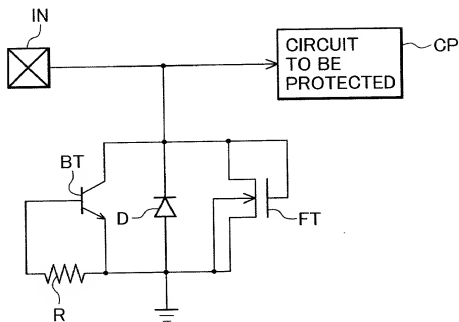


FIG.11
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